X. *Physical Properties of Dispersant/Surface Washing Agent/Surface Collecting Agent/Miscellaneous Oil Spill Control Agent:*

1. Flash Point: (°F)
2. Pour Point: (°F)
3. Viscosity: _____ at _____ °F (furol seconds)
4. Specific Gravity: _____ at _____ °F
5. pH: (10% solution if hydrocarbon based)
6. Surface Active Agents (Dispersants and Surface Washing Agents)[2]
7. Solvents (Dispersants and Surface Washing Agents)
8. Additives (Dispersants and Surface Washing Agents)
9. Solubility (Surface Collecting Agents)

XI. *Analysis for Heavy Metals, Chlorinated Hydrocarbons, and Cyanide (Dispersants, Surface Washing Agents, Surface Collecting Agents, and Miscellaneous Oil Spill Control Agents):*

Compounds	Concentration (ppm)
Arsenic	
Cadmium	
Chromium	
Copper	
Lead	
Mercury	
Nickel	
Zinc	
Cyanide	
Chlorinated Hydrocarbons	

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APPENDIX D TO PART 300—APPROPRIATE ACTIONS AND METHODS OF REMEDYING RELEASES

(a) This appendix D to part 300 describes types of remedial actions generally appropriate for specific situations commonly found at remedial sites and lists methods for remedying releases that may be considered by the lead agency to accomplish a particular response action. This list shall not be considered inclusive of all possible methods of remedying releases and does not limit the lead agency from selecting any other actions deemed necessary in response to any situation.

(b) In response to contaminated soil, sediment, or waste, the following types of response actions shall generally be considered:

[2] If the submitter claims that the information presented under this subheading is confidential, this information should be submitted on a separate sheet of paper clearly labeled according to the subheading and entitled ''Confidential Information.''

removal, treatment, or containment of the soil, sediment, or waste to reduce or eliminate the potential for hazardous substances or pollutants or contaminants to contaminate other media (ground water, surface water, or air) and to reduce or eliminate the potential for such substances to be inhaled, absorbed, or ingested.

(1) Techniques for removing contaminated soil, sediment, or waste include the following:

(i) Excavation.

(ii) Hydraulic dredging.

(iii) Mechanical dredging.

(2) Techniques for treating contaminated soil, sediment, or waste include the following:

(i) Biological methods, including the following:

(A) Treatment via modified conventional wastewater treatment techniques.

(B) Anaerobic, aerated, and facultative lagoons.

(C) Supported growth biological reactors.

(D) Microbial biodegradation.

(ii) Chemical methods, including the following:

(A) Chlorination.

(B) Precipitation, flocculation, sedimentation.

(C) Neutralization.

(D) Equalization.

(E) Chemical oxidation.

(iii) Physical methods, including the following:

(A) Air stripping.

(B) Carbon absorption.

(C) Ion exchange.

(D) Reverse osmosis.

(E) Permeable bed treatment.

(F) Wet air oxidation.

(G) Solidification.

(H) Encapsulation.

(I) Soil washing or flushing.

(J) Incineration.

(c) In response to contaminated ground water, the following types of response actions will generally be considered: Elimination or containment of the contamination to prevent further contamination, treatment and/or removal of such ground water to reduce or eliminate the contamination, physical containment of such ground water to reduce or eliminate potential exposure to such contamination, and/or restrictions on use of the ground water to eliminate potential exposure to the contamination.

(1) Techniques that can be used to contain or restore contaminated ground water include the following:

(i) Impermeable barriers, including the following:

(A) Slurry walls.

(B) Grout curtains.

(C) Sheet pilings.

(ii) Permeable treatment beds.

(iii) Ground-water pumping, including the following:

(A) Water table adjustment.

(B) Plume containment.

(iv) Leachate control, including the following:

(A) Subsurface drains.

(B) Drainage ditches.

(C) Liners.

(2) Techniques suitable for the control of contamination of water and sewer lines include the following:

(i) Grouting.

(ii) Pipe relining and sleeving.

(iii) Sewer relocation.

(d)(1) In response to contaminated surface water, the following types of response actions shall generally be considered: Elimination or containment of the contamination to prevent further pollution, and/or treatment of the contaminated water to reduce or eliminate its hazard potential.

(2) Techniques that can be used to control or remediate surface water include the following:

(i) Surface seals.

(ii) Surface water diversions and collection systems, including the following:

(A) Dikes and berms.

(B) Ditches, diversions, waterways.

(C) Chutes and downpipes.

(D) Levees.

(E) Seepage basins and ditches.

(F) Sedimentation basins and ditches.

(G) Terraces and benches.

(iii) Grading.

(iv) Revegetation.

(e) In response to air emissions, the following techniques will be considered:

(1) Pipe vents.

(2) Trench vents.

(3) Gas barriers.

(4) Gas collection.

(5) Overpacking.

(6) Treatment for gaseous emissions, including the following:

(i) Vapor phase adsorption.

(ii) Thermal oxidation.

(f) Alternative water supplies can be provided in several ways, including the following:

(i) Individual treatment units.

(ii) Water distribution system.

(iii) New wells in a new location or deeper wells.

(iv) Cisterns.

(v) Bottled or treated water.

(vi) Upgraded treatment for existing distribution systems.

(g) Temporary or permanent relocation of residents, businesses, and community facilities may be provided where it is determined necessary to protect human health and the environment.

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